

**2007 Risk Symposium Agenda
March 26-28 2007
La Fonda on the Plaza, Santa Fe, New Mexico**

Monday, March 26, 2007

7:00 AM – 8:00 AM: Check-in and Breakfast (7:30 AM – 8:00 AM)

8:00 AM – 8:30 AM: Opening Remarks

8:30 AM – 9:15 AM: Welcome

Dr. J. Douglas Beason – Associate Director, Threat Reduction Directorate, Los Alamos National Laboratory

9:15 AM – 9:30 AM: Break

9:30 AM – 10:30 AM: Plenary Talk

Risk Assessment at Risk: Washington Ways and the Future of Rational-Based Planning for Security and Disaster Response

Dr. James Jay Carafano, Assistant Director, Kathryn and Shelby Collom Davis Institute for International Studies, and Senior Research Fellow, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation

10:30 PM - 11:30 PM: Networking/Posters/Demonstrations

11:30 PM – 12:30 PM: Lunch

12:30 PM – 2:00 PM: Breakout Session

Breakout 1: Center for Risk and Economic Analysis of Terrorism Events (CREATE) Session	Breakout 2: Risk Assessment and Risk Management	Breakout 3: Coast and Border Security
<p>1. Overview of CREATE Charter, Organization and Results Detlof Von Winterfeldt, CREATE/University of Southern California</p> <p>2. Applying Optimal Capital Allocation Methods to Homeland Security Resources: A Case Study of California's Allocation of the Buffer Zone Protection Program Grants Henry Willis, CREATE/RAND</p> <p>3. Estimating Likelihood of Terrorist Attacks by Modeling Terrorist Beliefs and Motivations Richard John, CREATE/University of Southern California</p>	<p>4. Modeling of Security Considerations in the Transportation of Hazardous Materials Rajan Batta, Mark Karwan, Irene Casas and Justin Yates, SUNY Buffalo</p> <p>5. Valuating Strategic Preparedness to Manage Risks of Natural and Man-Made Disasters to Interconnected Economic Systems Kenneth G. Crowther and Yacov Haimes, University of Virginia</p> <p>6. Risk Management as a Congestive Network Problem for an Agent Collective Gary G. Nelson, Homeland Security Institute</p>	<p>7. Risk Reduction Return on Investment - How the Coast Guard Optimizes Mission Execution LCDR Dave Cooper, United States Coast Guard</p> <p>8. Strategic Risk Assessment Process for Maritime Homeland Security LCDR Jim Moran, United States Coast Guard</p>

2:00 PM – 2:15 PM: Break

2:15 PM - 3:45 PM: Breakout Session

Breakout 4: National Center for Food Protection and Defense (NCFPD) Session	Breakout 5: Mathematical Analysis and Modeling	Breakout 6: Adversary Modeling
<p>9. Risk Communication as an Intervention-Mitigation Strategy Tim Sellnow, North Dakota State University</p> <p>10. Risk Assessment and Preparation: A Private Sector Response Richard Ryan and Mark Cheviron, Archer Daniels Midland Company</p> <p>11. AgRA: A General Methodology for Performing Comparative Agricultural Risk Assessments for Decision Support Montiago Labute, Los Alamos National Laboratory</p>	<p>12. Design and Analysis of Experiments Applied to Critical Infrastructure Simulation Leslie M. Moore, Los Alamos National Laboratory</p> <p>13. The Weighted Targeted Consensus Measure as an Indicator of Risk Assessment Bill Tastle¹ and Mark J Wierman², ¹Ithaca College, ²Creighton University</p> <p>14. Flexibility Theory as a Transdisciplinary Science Kurtay Ogunc, University of Texas – Dallas</p>	<p>15. Development of Quantitative Utility Models for Adversary Intent Using Approximate Reasoning Stephen W. Eisenhower¹, Brian P. Key² and Pratap Sadasivan², ¹Logic Evolved Technologies, ²Los Alamos National Laboratory</p> <p>16. On the Role of Adversary Intent Models in Assessing Terrorist Risk: A Numerical Study Brian P. Key¹, Stephen W. Eisenhower², Pratap Sadasivan¹ and Terry F. Bott², ¹Los Alamos National Laboratory, ²Logic Evolved Technologies</p> <p>17. A Mathematical Risk-Based Approach to Characterizing Deterrence Douglas A. Samuelson, Homeland Security Institute</p>

4:15 PM – 5:00 PM Keynote:

The Honorable Robert B. Stephan, Assistant Secretary for Infrastructure Protection, Department of Homeland Security

5:30 PM - 7:00 PM Reception

Tuesday, March 27, 2007

7:30 AM – 8:00 AM: Breakfast

8:00 AM - 8:45 AM: Plenary Talk

Defensive Forecasting : Method of Sequential Probability Prediction Based on Game-theoretic Probability Framework

Dr. Glenn Shafer, Board of Governors Professor, Rutgers University

8:55 AM - 10:25 AM Breakout Sessions

Breakout 7: National Infrastructure Simulation and Analysis Center Session	Breakout 8: Emergency Response and Consequence Management	Breakout 9: Vulnerability Analysis/Risk Analysis
<p>18. The National Infrastructure Simulation and Analysis Center: A New Interagency Infrastructure Protection 'Center of Gravity' Colonel Merrick E Krause, USAF, ret. Counselor to Assistant Secretary, Infrastructure Protection & Program Manager, National Infrastructure Simulation and Analysis Center</p> <p>19. Causal Models and Probabilistic Techniques for Infrastructure Risk Assessment Daniel J. Pless, Sandia National Laboratories</p> <p>20. Approaches to Improving Decision Support in Multi-Disciplinary Problem Domains John Ambrosiano, Los Alamos National Laboratory</p>	<p>21. Civil Support Analytic Baseline Study Lt Col Maureen E Borgia, OSD/PA&E/SAC</p> <p>22. Public Response to a Terrorist Strike: Shifting from a Static to Dynamic Analysis of Risk-Related Behaviors William Burns, CSUSM/CREATE</p> <p>23. Chemical-Biological Disaster Response from a Systems Perspective Ed Pohl¹, Ray Hill², Laura Militello³ and Edward Boyle⁴, ¹University of Arkansas, ²Wright State University, ³University of Dayton, ⁴Air Force Research Laboratory</p>	<p>24. Assessing Vulnerability Due to Interdependencies among Critical Infrastructure Systems Earl E. Lee II, John E. Mitchell, and William A. Wallace, Rensselaer Polytechnic Institute</p> <p>25. Development of Terrorist Attack Scenarios Against The Air Transportation System M. Sorokach¹, S. Brown¹, K. Fisher², F. Jones¹, T. Bott³, S. Eisenhower³, J. Foggia⁴ and J. Santos⁴, ¹NASA-Langley, ²NASA-Glenn, ³Logic Evolved Technologies, ⁴National Institute of Aerospace</p> <p>26. An approach to Integrating Perils Dependencies in Estimating Risk: Identification of Research Needs Jean Savy, Risk Management Solutions</p>

10:25 AM – 10:35 AM: Break

10:35 AM – 11:45 AM: Panel Discussion

Dr. Vicki Bier, Director, Center for Human Performance and Risk Analysis and Professor, Department of Industrial and Systems Engineering, University of Wisconsin-Madison

Dr. James Carafano, Assistant Director, Kathryn and Shelby Collom Davis Institute for International Studies, and Senior Research Fellow, Douglas and Sarah Allison Center for Foreign Policy Studies, The Heritage Foundation

Ms. Tina Gabrielli, Acting Director, Risk Management and Analysis Office, Department of Homeland Security

Mr. Shaun Kennedy, Associate Director, National Center for Food Protection and Defense (NCFPD)

Dr. Gary LaFree, Director, Center for Study of Terrorism and Responses to Terrorism (START) and Professor, Department of Criminology and Criminal Justice, University of Maryland

Dr. Glenn Shafer, Board of Governors Professor, Rutgers University

11:45 PM – 12:45 PM: LUNCH

12:45 PM - 1:40 PM: Plenary Talk

The Social Context of Terrorism: Case Studies from Turkey and Northern Ireland
Dr. Gary LaFree, Director, Study of Terrorism and Responses to Terrorism (START) and Professor,
Department of Criminology and Criminal Justice, University of Maryland

1:50 PM – 2:20 PM: Special Talk

Risk Management and Analysis Office: An Overview
Ms. Tina Gabrielli, Acting Director, Risk Management and Analysis Office, DHS

2:20 PM – 2:30 PM: Break

2:30 PM - 4:00 PM Breakout Session

Breakout 10: National Center for Study of Terrorism and Responses to Terrorism (START) Session	Breakout 11: Software Tools	Breakout 12: Decision Support Systems and Simulation
27. Global Terrorism Trajectories Gary LaFree, START/University of Maryland	30. Simulation and Optimization as Effective Risk Analysis Tools Fred Ciochetto, Decisioneering	33. Multivariate Investment Decision Support Tool – MIDST Frank Gilfeather, Thomas Preston Caudell, Timothy Ross, Mahmoud Taha, Panaiotis, Roshan Rammohan, Shan Xia, University of New Mexico, Jim Cowie, Hung Nguyen, William Ogden, Ram Prasad, Steve Helmreich, New Mexico State University, Sundara Vadlamudi, Markus Binder, Monterey Institute of International Studies - Center for Non-Proliferation Studies Steve Eisenhower; Terry Bott, Consultants
28. Determining the Terrorist Threat: The Neglected Leg of Risk Assessment Gary Ackerman, START/University of Maryland	31. Pathways and Assessment Mapping Tool for Risk Analysis Mary Ann Bjornsen, USDA/APHIS/CEAH	34. Reliability Based Design Optimization for the Critical Infrastructure Protection Decision Support System Mark McDonald ¹ , Sankaran Mahadevan ¹ , Dennis Powell ² and John Ambrosiano ² , ¹ Vanderbilt University, ² Los Alamos National Laboratory
29. Mechanisms and Measures of Political Activism and Radicalism Sophia Moskalenko, START/Bryn Mawr College	32. A Software Framework for Applying Diverse Reasoning Methods in Risk Analysis John Ambrosiano and Randy Roberts, Los Alamos National Laboratory	35. Mitigating Disruptions in Supply Chain Tom Schmitt ¹ , Kathryn Stecke ² , Sanjay Kumar ² , Fred Glover ³ , ¹ University of Washington, ² University of Texas Dallas, ³ University of Colorado

Breakout 13: Critical Infrastructure Protection Decision Support System	Breakout 14: Risk and Vulnerability Analysis	Breakout 15: Qualitative Risk Assessment
<p>36. An Overview of the Critical Infrastructure Protection Decision Support System Dennis Powell, Los Alamos National Laboratory</p> <p>37. Application of Interdependency Modeling to Infrastructure Risk Assessment Sharon Deland and Dan Pless, Sandia National Laboratories</p> <p>38. Analysis of an Accidental Release of Toxic Industrial Chemical in an Urban Setting Michael Samsa, Argonne National Laboratory Dennis Powell, Los Alamos National Laboratory</p> <p>39. Information Sharing with CI/KR Owners and Operators Evan Wolff, DHS</p>	<p>40. Applying Uncertainty Analysis to the Risks of Foot-and-Mouth Disease Vicki Bier and Lorna Zach, University of Wisconsin-Madison</p> <p>41. Mining Vulnerability Assessment Data to Support CI/KR Risk Analysis Melanie Tompkins, Argonne National Laboratory</p> <p>42. Homeland Infrastructure Foundation Level Database (HIFLD) Working Group and Homeland Security Infrastructure (HSIP) Gold Data Justin Sherin, HIFLD Support Staff Lead from Booz Allen Hamilton</p>	<p>43. Linguistic Ranking of Terrorist Scenarios Using Belief and Approximate Reasoning John Darby, Sandia National Laboratories</p> <p>44. On the Linguistic Presentation of Fused Information for Human Comprehension Ronald R. Yager, Machine Intelligence Institute, Iona College, NY</p>

Wednesday, March 28, 2007

7:30 AM - 8:00 AM: Breakfast

8:00 AM - 8:50 AM: Plenary Talk

Optimal Resource Allocation for Defense of Multiple Targets

Dr. Vicki Bier, Director, Center for Human Performance and Risk Analysis and Professor, Department of Industrial and Systems Engineering, University of Wisconsin-Madison

9:00 AM - 10:30 AM Breakout Session

Breakout 16: Risk Assessment Applications	Breakout 17: Modeling Risks under Uncertainty
45. Development, Application, and Implementation of RAMCAP to Characterize Nuclear Power Plant Risk from Terrorism Grant Teagarden, Erin Engineering	48. Modeling Secrecy and Deception in Homeland Security Resource Allocation Jun Zhuang and Vicki Bier, University of Wisconsin-Madison
46. Modeling the Risk and Life Cycle Cost of Protecting U.S Commercial Aircraft Kirk Hoy and Kirt Willstatter, Summit Engineering Group	49. Critical Facility Protection Optimization Under Uncertainty for Single and Multiple Adversary Teams Patrick Hester and Sankaran Mahadevan, Vanderbilt University
47. Risk Assessment of Global Positioning System (GPS) Spoofing Mihaela Quirk, Los Alamos National Laboratory	50. Analysis of Defensive Architectures to Reduce Terrorist Risk Using Logic Gate Trees S. Eisenhower ¹ , B. Key ² , T. Wehner ² , S. Demuth ² , T. Bott ¹ , P. Sadasivan ² , S. Donald ² , ¹ Logic Evolved Technologies, ² Los Alamos National Laboratory

10:30 AM – 10:45 AM: Break

10:45 AM – 11:45 AM Breakout Session

Breakout 18: Risk Assessment and Analysis	Breakout 19: Agent-Based Modeling
51. Generalized Least Risk Routing with Applications to Counterterrorism Harry R Blacksten, Homeland Security Institute	53. CrowdSim: An Agent-based Framework for Simulating Large-crowd Dynamics Kevin Saeger, John Ambrosiano, Randy M. Roberts and Tim Cleland, Los Alamos National Laboratory
52. Requirements for Developing a Full Risk Analysis Method for Fire Protection Engineering Paul A. Reneke, Building and Fire Research Laboratory National Institute of Standards and Technology	54. Distributed risk minimization in teams with incomplete information D. Georgiev, P. T. Kabamba and D.M. Tilbury, University of Michigan

Symposium Adjourned